

Aviation News

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Company's financial report reflecting record operation in fiscal year says work continues on 400-passenger craft.....Page 27

National Gets Florida-N. Y. Route

CAB authorizes competition along productive eastern seaboard and at same time puts one of smaller companies into field with Eastern Page 30



Aviation Expert to Little Cabinet; William A. M. Burden, widely known authority, who has been special aviation assistant to the Secretary of Commerce, has been named Assistant Secretary of Commerce, in which post he is expected to continue his close association with the industry and its related activities. He brings to his new post a long career in commercial and government aviation administration.



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THE AVIATION NEWS

Washington Observer

BARUCH REPORT—Crowding arose from the war fronts for attention in Washington is the Baruch report on reconversion—a report which found enthusiasm in some quarters, general acceptance in most and some criticism in still others. The initial reaction of several industry executives was that they had no strong criticism to offer and that generally it appeared to be sound. On details, of course, there was disagreement, but that was to be expected and even some of those who took immediate exception to the Baruch recommendations were inclined to modify their views on further study. While the report has all the makings of a sharp conflict between the executive and legislative branches of the government, this fight was not expected to develop in view of the urgency of moving up on the vital question of reconversion which affects our whole future economy.

THE GEORGE COMMITTEE—Senator George, chairman of the Senate's post-war planning committee, was quick to criticize the Baruch report, largely on the basis that its execution would ignore the legislative branch, although proponents of the report insisted that its provisions can not be put into effect without legislative action. It was regarded as significant that, when Benjamin George, Murray and Hill introduced an over-all bill to carry out the recommendations of the Senate committee for industrial and human demobilization, George said the bill did not differ materially from the recommendations made in the Baruch report.

STAND-BY PLANTS—In connection with reconversion, it does not appear right now that any, if any, of the various aircraft engine plants operated by automotive companies such as Chrysler, Buick, etc., will be held in reserve

as stand-by plants after the war, according to best information available in Washington. Companies like Wright, Pratt & Whitney and other old-line aviation engine firms probably will have first right of operation to any stand-by plants the Government decides on. In this connection it appeared likely that the old-line companies will get development orders from the government to assure continued research and development. Arrival of jet propulsion in a factor in our decisions on stand-by plants. One official expressed a doubt that many aircraft engine plants will be kept because there is some doubt that plants will be using engines of today's type ten years from now.

LINKED-CONTROLS PLANE—There is no change planned in the first model of the post-war Erosage, the linked-controls private plane which was the center of considerable controversy in pre-war aviation circles because Erosage developed a stick control which was attached to the rudder, eliminating foot rudder controls. Plans made terms with the control column. About the only change now planned, it has been learned, will be an improved power plant. In order to satisfy all buyers before the war, Erosage offered both bi-controlled and bi-controlled planes. They sold 700 and in their assessment, 600 were requested and sold with the linked-controls—without the foot pedals. Of the other seven, four went to the CAA for tests. If pre-war indications are a criterion, the bi-controlled linked-controls Erosage may take a lead in the post-war light plane field. Certainly they merit watching.

NEW TRUMAN REPORT—A new over-all report from the Truman Committee is expected to be released shortly. There are indications that

Projected post-war Erosage unchanged except for improved power plant





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February 28, 1946

Airport Heads Discuss Plans To Put Fields on Paying Basis

Representatives from 17 states attend conference at Ft. Wayne, Ind.; Hesse urges air terminals 'decentralization' program

By ALEXANDER McSURLY

Constructive recommendations to put the airports of the nation on a paying basis were outlined by speakers and discussion leaders at the Airport Managers Conference at Ft. Wayne, Ind.

Called as a Midwest meeting, the conference took on national importance as representatives from 17 widely scattered states attended, and CAA Administrator Charles Houston and other government and industry leaders made their appearance.

Airport Design Studied—Besides the most-mentioned problem of making the airport pay its way, the conference also studied airport designs of the future, listened to airline representatives' denunciations of airport taxes and schedule fees and gave general approval to the proposed simplification of Part 80, Civil Air Regulations.

Two other problems scheduled for consideration at the two-day session were left without speakers when Bruce Turner, NATA president, Indianapolis, and Thomas E. Walsh, Michigan director of aeronautics, were prevented by illness from presenting addresses dealing respectively with private pilots and with government control of airports.

Decentralization Plan—The most news-making talk of the session was the report of Albert F. Hesse, United Air Lines architect, on a proposal for breaking the airport of the future down into air and airline terminals, a radical departure from the generally accepted present-day airport design which calls for one large terminal building.

Presenting a series of drawings to illustrate his plan, Hesse reported that the "decentralization plan" simplified handling of large

crowds by serving them in smaller groups. Under his plan the passengers would go directly to the unit at which their plane was stationed, without passing through a central terminal building.

Use Program—Starting with a series of one-story buildings, interconnected to each other and to a central public building, the final plan would make possible economical unit expansion as needed, Hesse reported. When the time came that growth of cargo and passenger movements made separation of these activities desirable, the air terminals would add another story.



ALBERT F. HESSE

and the passengers would be accommodated on the second floor, with cargo on ground floor level. Access would be provided directly from the passenger level to their planes.

The proposed design would call for a public observation deck extending toward the edge of the air-



Representative Airport Managers—Among those attending the recent Airport Managers Conference at Ft. Wayne, Ind., are (left to right, seated) Robert Schott, South airport, Ft. Wayne, general chairman; Dudley Steele, Lockheed Terminal, Burbank, Calif.; Earl T. F. Baileys, Akron municipal airport; Don W. Martin, Detroit municipal airport, (standing) George McSherry, Dayton municipal airport; John H. Gray, Atlanta municipal airport; Alfred McDonald, Wichita, Kan.; director of police and airports and J. Kirk Baldwin, Washington CAA airport management consultant.

part on the roofs of the various unit terminals and connected to the central public building. Transportation for passengers, changing planes, to other unit buildings, would be provided in a tunnel under the unit terminals, connected with the public center. Electric cars, motor trains, moving sidewalks or similar conveyances would carry passengers on one side of the tunnel, while tractor trains would haul cargo and mail on the other side for interconnecting schedules. Departing passengers would leave through a passageway leading to waiting surface transportation.

► Plans Proposed—Reno said that there is a practical application of the multiple unit terminal plan seen now under way at Denver under supervision of George Cramer, manager of parks, whom he credited with major contribution to the plan. The Denver terminal will be the first of its type constructed, he said.

Discussing future airports in most general terms, John J. Hagan, Chicago CAA airport engineer, urged immediate attention to connecting areas surrounding airports, to provide proper runway approaches. He commented that in many cases it would be cheaper for communities to buy new airport sites than to purchase land surrounding their present fields to clear approaches for longer runways.

► Opposes Super-Airports—Hagan found a wet blanket on the hopes of small communities for super-

airports, government financed, saying that the CAA did not "expect to build a lot of super-airports or airports at communities that cannot support them."

A third approach to the unit terminal of tomorrow was taken by E. J. Foley, assistant to vice-president, engineering, American Airlines, New York, who emphasized that a realistic study of factors entering into a community's future possibilities in the air world should be a pre-requisite to airport planning. He warned against communities adding themselves with airports beyond their future needs just to "keep up with the Joneses." Present thinking puts a limit on runway length at 10,000 feet. Runway patterns not carefully planned can choke off future growth of a terminal, he warned.

► Express Highways—Transportation of passengers to and from the terminal will require express highways to the downtown area or some other rapid transportation, he pointed out. Hopes for helicopter taxi service, between terminal and downtown, are still far from fulfillment, since the helicopter is still very much in the development stage, he added.

To an observer who can remember some of commercial aviation's leaner years, one of the most significant thoughts about the conference was the virtual agreement among speakers representing airlines and municipalities that the municipal airport should be a self-supporting operation, and that the municipal

taxpayer should no longer have to dig down in his pocket to pay an annual deficit for his airport.

► New-Fresh Port Used—There were shadings of course to this general agreement. E. N. Averill, of Pennsylvania-Central Airlines, said an airport should be self-supporting but should not be a profit-making enterprise. He declared airport rentals to airlines had never yet been placed on a sound economic basis, and urged that careful studies be made, to determine an airport's operating cost, and all possible sources of revenue, so that a satisfactory arrangement could be made under which the airlines could pay their share.

"At present, the situation is on a borrowing basis," he added. Walker Winslow, Indianapolis Municipal airport manager, came out boldly for airport operation at a profit. "Nobody ever envisioned a municipal light plant or other utility for reducing the tax burden and the municipal airport can be in the same category," he said. Winslow declared Indianapolis planned to operate a modest hotel at the airport, after the war, as one means of additional revenue.

► Solidarity—"If you think the taxpayers are going on many more years to subsidize a going business like aviation, you are much mistaken. The public was willing to make the original investment in an airport, much as it subsidized the railroads in the early days. From now on it's up to aviation to carry its own load," he declared.

Alfred MacDonald, Wichita director of parks and airports, called for a general formula covering the charges paid by airlines for use of airport facilities, pointing out that little uniformity of payment now exists.

► Airport Financing—Outlining legal precedents for municipal operation of airports, MacDonald discussed bond issues for acquiring airport land, pointing out that, generally speaking, municipal taxpayers were willing to make the first investment for the future of their city, and that it did not in most cases have to be self-liquidating.

He advocated further study by municipalities into the use of revenue bonds for financing of additional airport improvements, with a proviso that rentals obtained from the facilities created be used to pay the interest and retire the principal obligation. Bonds, he argued, recently financed his hangar and office building on such a basis.

► Statistics—Howard Crash, Commercial manager of Lorain Municipal airport, set the conference business with a startling set of statistics and the frank admission that his airport was only recovering \$5.20 per flight schedule per month as a result of a schedule fixed back in the lean years and never changed. Average rate per schedule per month should be just \$25, he said.

He contrasted the returns per passenger to the airlines and to the airport, as a transcontinental flight, saying that the airline had an investment of approximately \$100,000 in each transcontinental flight and received approximately \$125, while each airport along the line, with a much greater investment, than the airline, received only a few cents per passenger per landing. In his own airport, he said, it figured about one cent per passenger per landing.

► Other Factors—This was pointed out in discussion later that the Commercial manager's statistics did not take a number of factors into account, but his argument served as a convenient wedge-upper, and brought forth a suggestion from MacDonald that it would be to the advantage of an airline which had a schedule fee obviously out of line with operational costs involved to make a voluntary agreement with the city in the interest of better relations with its potential customers in that city.

Opposition to granting of exclusive gasoline rights at an airport to the exclusion of competitor gas



BRITISH BOMBER-RECONNAISSANCE PLANE

Port photo released of the Albatross, long-range monoplane of composite wood and metal construction. It has a wingspread of more than 250 feet at 38,520 feet and a range of 5,200 miles. It has been used for transport work and chiefly for testing targets.



oline companies was voiced by oil company representatives and airline speakers.

► Specialized Fuel—Louis Isenrod, TWA executive assistant, Kansas City pointed out that airlines were buying specialized fuels adapted to their engines and that a exclusive gasoline concession at an airport introduced seriously with the practice. "Carried to its logical extreme, the airline might be told what kind of pump plugs it shall use and from whom it shall purchase them," Isenrod said.

He said an airport "city" fee per schedule was still the most equitable means for a airline to pay its share of airport cost, but added that the first few schedules should be at a higher monthly rate than additional schedules, and that schedules, according to need of equipment used, should be adopted. "This fee should be adjusted to provide adequately an amount of money consistent with the proportionate use which the airlines as a group are making of the facilities used," he said.

► Pre-War Operations—J. Kirk Baldwin, CAA airport management consultant, reported that immediately before the war less than 15 percent of the nation's municipal airports were operating at a profit, due to poor management, or lack of proper accounting methods. He warned managers against being lulled by wartime prosperity at

many ports due to army and navy operations, and other increased revenues which cannot be expected to continue in peacetime.

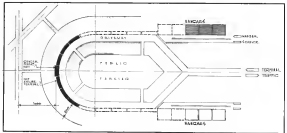
Dudley Steele, Lockwood terminal manager, Portland, described various means of extra revenue found at his airport, through automobile parking and service facilities, restaurants, hotel and shop lease, gasoline service to airports, and similar enterprises. He urged establishment of bowling alleys, theaters and similar establishments at the airport.

► Many in Armed Services—Pat Moore, representing the American Association of Airport Executives, reported that more than half of that organization's membership was now in the armed services. Next meeting of the association is set for July 10, 11 and 12 at the Sherman Hotel, Chicago.

Robert T. Schott, manager of Smith Municipal field, Ft. Wayne, was general chairman of the two-day conference, which was sponsored by the Ft. Wayne Board of Aviation Commissioners.

Canada's Air Industry

Post-war future of the Canadian aircraft industry is receiving increasing attention by industry and government officials who point out that one percent of Canada's total population is now engaged directly in aircraft production.



U.S. Architect Suggests Unit Terminal Development Plan. Diagram shows a unit terminal plan supported by Fort Wayne, Ind., Airport Managers Conference.

By Albert P. Reno, United Air Lines architect. Plan would provide for expansion of both terminal and hangar buildings, each sitting at separate ends.

Airworthiness Requirements Body Formed by Aeronautical Chamber

Membership made up of 40 leading aircraft manufacturing companies, headed by Boeing Aircraft's Vice-President Beall.

Chief engineers and technical executives of the aircraft manufacturing industry have taken a long step forward for their mutual benefit and for the progress of aviation generally in the formation of an Airworthiness Requirements Committee of the Aeronautical Chamber of Commerce.

Top technical men of more than 40 leading aircraft manufacturers make up the membership of the airworthiness requirements committee, a significant show of unity which bodes well for the future of the industry.

F. Beall Heads Group—Back of the action is a desire to provide an active technical group, representative of the aircraft manufacturers, which can continually review all airworthiness requirements for suitability. Head of the group, whose organization has just been completed, is W. E. Beall, vice-president of engineering, Boeing Aircraft Co.

Organization of the committee had its inception in St. Louis early in February at a conference of chief engineers and technical executives under the auspices of the Technical Department of the Chamber, of which E. W. Norris is manager.

• Plans Outlined—A directive of

The organization, functions and operation has just been issued by Chamber headquarters in Washington, outlining preliminary plans which state that the committee will

• Coordinate airworthiness problems with both company and technical specialists and engineering management.

• Institute studies and experimental tests when deemed advisable, or when requested by the Government, in developing new requirements or revisions to current requirements.

- ▶ Provide government aeronautical agencies with a single contact on airworthiness problems.
- ▶ Assert the interests of the aircraft manufacturers regarding agreements that may be made by our government on uniform international requirements.

•Promote Army-Navy-civil standardization of design criteria, and, as a result of these, prepare and submit to the interested government agencies, recommendations for improvement of airworthiness requirements.

The set-up of the Airworthiness Requirements Committee begins with a National Committee, composed solely of representatives of

the aircraft manufacturing industry whose companies are represented on the Americanized Chamber's Airplane Technical Committee. The Committee will be divided into an eastern and western division with the Rocky Mountains as the dividing line. Subcommittees composed of member technical specialists will be established as necessary to work on specific requirements problems.

Policy Group—A steering committee will act as a board of directors and policy-making group. This committee is headed temporarily by Beall, an western representative, and Herbert Rowdree, assistant chief engineer of Beech Aircraft, an eastern representative. Election of National, Eastern and Western chairmen will be forthcoming.

Following is the list of members of the Airworthiness Requirements Committee:

[illegible]

Gas Over 86 Octane Is Ration Exempt

GPA means rating on fuel economy where used for more vehicle.

By MARY FALLINE PERRY

This move was made because the country's entire output of high octane aviation gasoline is controlled by the Aviation Petroleum Products Allocation Committee by allocation and no useful purpose is served by subjecting it to economic rationing. GPA said. When the fuel is needed for testing or for experimental purposes, APPAC does the allocating.

War Production Board announced the U. S. had stepped up its 1949 primary aluminum production 25 percent above 1942. Total primary production in 1949 amounted to 1,000,000,000 pounds, while aluminum recovered from secondary sources added 500,000,000 pounds more.

Additional production controls to speed output of large size ball bearings, essential components for such war goods as heavy artillery and airport construction machinery, have been announced by WPS. The new order is expected to concentrate factory staffs and make large anti-friction bearings available at a more rapid rate.

Aluminum Sheet—WPA Aluminum and Magnesium Division Director Philip D. Wilson told aluminum sheet producers that production must be stepped up at once if 1944 requirements are to be met. He also appealed to workers in aluminum sheet plants to stick to their jobs. Wilson said there was a 60 percent increase in aluminum weight scheduled for 1944. Aluminum has a place in everything in sheet, he said.

Belle Bayne Merlan, Aluminum Casting Industry Advisory Committee has been formed within WPA with Stanton W. Ballard of the Aluminum Division as government attending officer.

► **Committee**—Membership of the committee is made up of representatives from Aluminum Alloy Corp., Detroit; National Bronze and Aluminum Foundry Co., Cleveland; Kinross Foundry Co., Elkhart, Pa.; Brown Bros., Anderson, Ind.



NORTHWEST STRESSES VISIBILITY

Northwest's ticket office at Seattle emphasizes interior display, rather than window shows, to attract the passerby. With traffic offices of United, Pan American and Alaska Star Airlines, it gives a modern air to Seattle's Metropolitan Center group of airline offices.

General Malleable Corp., Waukegan, Howard Foundry Co., Chicago, Metal Parts Corp., Racine, Maytag Co., Newton, Iowa, Aluminum Co. of America, Cleveland, Aluminum Industries, Inc., Cincinnati, Hobas Aluminum and Brass Corp., Detroit, National Foundry and Machine Co., St. Louis and Acme Pattern and Tool Co., Dayton.

Brig. Gen. Albert J. Browning, Director of Purchases, War Department, has been appointed chairman of WPB's Procurement

Policy board, succeeding Frank M. Polson, formerly assistant chief in charge of procurement of the Navy Department.

► **Procurement Policy Board** is composed of the top procurement officials of the Army, Navy, Maritime Commission, Treasury Procurement Division, WPB, CPA, and Smaller War Plants Corp. The function is to develop overall purchase policies for the major war procurement agencies and

► **Delaware Plant Corp.** announced an increase in its contract with Flintwings Division of Kaiser Corp., Inc. to provide additional plant facilities at Bristol, Pa., at a cost of approximately \$330,000 resulting in an over-all commitment of about \$3,960,000.

The DPC contract with Fairchild Engine and Airplane Corp. has been increased by about \$30,000 for additional plant facilities in Burlington, N. C. Over-all commitment is approximately \$3,900,000.

Interstate Aircraft and Engineering Corp., El Segundo, has increased its DFC contract by approximately \$70,000 for additional facilities at a plant in De Kalb, Ill. with the result of approximately \$1,544,000 in total commitment.

Confidential Motors—An increase in contract with Confidential Motors Corp. (Detroit) to provide additional plant facilities in Garland, Tex., at a cost of approximately \$400,000, resulting in an overall commitment of about \$1,500,000 has been announced by DPC.

DPC has executed a contract with National Bronze and Aluminum Co., to provide plant facilities at Cleveland at a cost of approximately \$1,300,000.

The National War Labor Board ruled that authority to direct a company to cease recognizing and bargaining with a minority union when another union has been certified as sole collective bargaining agent for its employees is not within the jurisdiction of the NWLB.



AIRCRAFT PROCESS ENGINEERS:

Permanent officers of the Wichita chapter, Society of Aircraft Process Engineers, elected at the recent organization meeting were, left to right: Bill Maure, acting aircraft chairman; William A. Hartman, Bronch Aircraft, vice-chairman; Earl Krauser, Boeing, and W. K. Foster, Beach, sponsored the organization of the national society last May by calling a meeting of process engineers from various aircraft plants. Purpose is to cooperate in the pooling of information for advancement of aircraft production during the war and has resulted in the creation of uniform methods of production in Wichita plants.

of the Dallas Board which directed Hughes Tool Co. of Houston, to cease and desist from recognizing and meeting with the president and committee of the Independent Metal Workers Union.

National Labor Relations Board has certified two unions at Douglas Aircraft Co., Inc., Long Beach, Calif. The Brotherhood of Electrical Workers-AFL was certified for electrical maintenance and electrical construction department employees and the remaining hourly paid production and maintenance employees were certified UAW-CIO.

In addition, the Park Ridge, Ill., Douglas plant was ordered to hold election for maintenance painters for the Brotherhood of Painters, Decorators and Paperhangers-AFL, UAW-CIO, or neither.

Election—Board ordered Western Aeronautical Supply Mfg. Co. Inc., Glendale, to hold election for production and maintenance employees for IUIA Union of Machine-AFL, UAW-CIO, or for neither.

Certified—GMC Chevrolet Motor Division, Aviation Engine Plant No. 1, Bufile, to hold election for production and maintenance employees for IUIA Union of Machine-AFL, UAW-CIO, or for neither. The Board certified Boon Aluminum and Brass Corp., Los Angeles, maintenance employees for IUIA Brotherhood of Electrical Workers-AFL, maintenance mechanics and helpers for IAM-AFL, and production and maintenance employees for IUIA Union Mine, Mill and Smelter Workers-CIO.



RUSSIANS AT ASC HEADQUARTERS:

Satisfaction with land-lane shipments to Russia was expressed by Lt. Col. A. P. Doran, right, representative of the Soviet Embassy at a two-day conference at Air Service Command Headquarters. Col. Doran is shown above with Lt. Col. Michael Kraschak, Dayton liaison representative of the Russian purchaser commission, left, and Lt. Col. Charles R. Glavin, senior, chief of the Russian-Dutch office, United Nations section, Air Service Command.

WEST COAST REPORT

Alaska Held U.S. Ace-in-Hole In World Air Route Poker Game

Pilots flying between far north and Seattle see territory as of great strategic value in position of vital link of great northern route to Orient and Siberia.

By SCHOLER DANGES

SEATTLE—Alaskan transport pilots, flying between the far north and Seattle, hope Secretary Hall and others concerned appreciate Alaska's better value with respect to international home trading for world air routes. Much has been written about Canada's commanding position on global airways but little about Alaska.

"They look at it this way," if all routes, post-war, agree to free trade in air commerce and free use of their respective landing facilities, well and good. But if determination of landing privileges on global air routes becomes a poker game—Alaska is the United States' ace-in-the-hole.

They seem convinced that other nations besides the United States will want to operate over northern Great Circle airways between the North American continent and the Orient, Russia, and possibly India. "There isn't an airliner built, or planned, that will be able to fly the northern great circle to the

Orient or Russia without landing in Alaska to refuel.

Mad as Cakes—Even if foreign operators did have such places they'd still not want to fly-pass Alaska. They'd still carry every cargo from east to west.

"The right to land there and refuel is going to be of inestimable value, and in this country's assurance of parity at every international air commerce conference table.

Reciprocity—"If we hand out Alaskan landing rights free to Great Britain and other governments, the United States will run the risk of losing operating rights over comparably valuable global routes elsewhere—unless she can reciprocal airway rights from other governments at the moment of throwing open the air gateway to Alaska."

Alaskan pilots are emphatic in their belief that Canada may want to take a whiff at attempted air trade with the United States through Alaska. They believe, too, that the heavily capitalized British Overseas has its eye on great circle routes that slice through Alaska.

THE PACIFIC SOUTHWEST—Look for more this "business as usual" among aviation enterprises is the State of Washington after the war.

There's an understanding of acceptance already in Seattle, and in the State Capital at Olympia.

Airlines now terminating domestic operations at Seattle have been eyeing on a potential heavy volume of air freight to and from Alaska.

Weather Myth Exploded—War-time cargo transport operations up the coast from Seattle, and by the inland route extending from Eielson Airfield, Alaska, into the Alaskan interior via Fairbanks, have exploded the myth that Alaskan flying is dangerous, intermittent, and requires a large amount of black magic.

One transport operation into Alaska, flown by United Air Lines out of Seattle up the Alaskan coast, scored six recent considerations of scheduled flights—during a tough winter month. Seattle will gain post-war aviation experience as a stepping stone en route to the Orient that will swing over the Gulf of Alaska and follow the great circle course.

BAROMETER—Pan American Airways serves as a barometer of Seattle's aviation future. Its Alaska and Trans-Pacific divisions were consolidated Feb. 1, and Seattle was made headquarters for the company's Alaska Sector.

Seattle's post-war business growth and resumption of trade with the Orient by air as well as surface carrier indicates expansion of air services to the East Coast as well as to California.

Northwest Airlines already is seeking to strengthen its position on its Seattle-Twin Cities route to strengthen the competitive position of the northern transcontinental route. Today, a considerable portion of peacetime northern transcontinental route business is lost to United Air Lines' multi-continent route through United's Seattle-St. Louis City Service.

WCA Strong Bidder—Also, Trans-Canada Airways, operating fast post-war service and the Vancouver, B.C., routes the border from Seattle, is becoming a strong bidder for business developing in the Puget Sound area.

Looking ahead, Washington's Gov. Arthur B. Langley and his associate assistant, Ross Cunningham, are preparing for aviation growth that will require a clear definition of the state's stand on intra-state air commerce regulation, financing, and taxation.

Governor Langley indicates a desire for rapid development of aviation manufacturing and commerce in his state which he says.

The state's views on these matters are industry's views. Under Ross Cunningham's chairmanship, the Governor has created an advisory committee on aviation that will recommend airport expansion policies and commerce regulation. State officials are expected to deal lightly with the subject of air line routes that, momentarily might not cover monthly than \$1,000 when it was new, the discount was four times 8 percent or 32 percent and the purchase price was \$893. If the original owner bids selling price now, about one year later he will get his plane

500 More Surplus WTS Planes Swell Number to Be Sold to 1,500

New batch of liaison and training types received from Army and Navy examined by field staffs for classification, disposal.

By BLAINE STUBBLEFIELD

About 970 light airplanes are loan by Defense Plant Corp. to training contractors under CAA's War Training Services have been declared surplus and will be sold. Counting about 880 light planes recently received by WTS from Army and Navy—some liaison and some training types—there is no CAA's estimate on the amount of gliders that can be returned to private flyers by local liaison boards. The result is that some aircraft owners have backed out of receiving CAA's check that they are entitled to. CAA is now completing a tabulation of gas consumption of various planes, which will soon be in the hands of the boards.

WTS field offices are still processing all operations under instructions to be disposed with all equipment that can be agreed.

Bids Opened—Two hundred eighty of the 970 surplus planes have been inspected and 104 have been listed in bids for sale. A number of bids were opened Feb. 22, awards will require several days. Regulations require that bids be sent to DPC for approval. W. H. McLean Stewart, executive director of surplus WTS, has power to pass on them.

It is not expected that any more of the approximately 3,000 planes purchased by DPC under an acquisition order and lent to WTS will be declared surplus until the Navy's WTS credit training program is discontinued, probably in June. The entire 3,000 will be sold eventually. There is an advance agreement on the number of planes that may be transferred to WTS from Army and Navy. When these transfers are received WTS declares surplus like number of its less desirable surplus.

OPA Formula Used—DPC purchased private planes under the same formula followed by OPA in setting up its used plane price ceiling. The formula is based on the Oct. 1, 1941, price of the plane when new and it allows depreciation at the uniform rate of 1 percent per year.

For example if DPC bought a plane four years old that cost \$1,000 when it was new, the discount was four times 8 percent or 32 percent and the purchase price was \$893. If the original owner bids selling price now, about one year later he will get his plane

back at 40 percent off, and the price will be \$596.

Gas Refuse—Apparently owners of private planes will continue to receive gas ration stamps without difficulty. A recent amendment, No. 185, to liaison Order 4-42, does not affect the status of private flying. There is no CAA's regulation on the amount of gasoline that can be returned to private flyers by local liaison boards. The result is that some aircraft owners have backed out of receiving CAA's check that they are entitled to. CAA is now completing a tabulation of gas consumption of various planes, which will soon be in the hands of the boards.

Bill Asks Civilians Get Surplus Gliders

Hayden urges craft be turned over to CAA for distribution.

A bill authorizing the Civil Aeronautics administrator to receive surplus training gliders and sailplanes from the Army Air Forces and distribute them to various glider schools and clubs has been introduced by Sen. Carl Hayden.

Spokesman for the senator and for the CAA, and the Army also considered surplus glider equipment as a lead, proposed when the unpowered combat plane program was later in issue than it is now. CAA does not possess any such equipment itself, and at present has no training program in which gliders can be used.

Heaviness—When and if hearings are held on the Hayden bill, experts witness will bring up the old question whether students should receive training in gliders or powered planes first. Some officials of CAA and the Air Forces will say that was training proves glider students are safer if they have power experience. Of course, the opposite view will be expressed. It will be shown also that the membership of many glider clubs is largely experienced pilots. It is believed the Army is willing to release the equipment.

New Moves Enliven Battle For Reconstruction Policy Rule

Baruch and Hanoack issue comprehensive report of industrial demobilization recommendations while Senate George introduces bill covering same field.

Congress and the Administration squared off last week to determine who would decide the policies to guide the reconstruction of American industry from wartime to peacetime production. The same, which has been forming for the past six months, came suddenly to a head with these developments:

► **Message by Bernard M. Baruch and John Hanoack** of a lengthy report of recommendations covering every phase of industrial demobilization.

► **Introduction by Sen. Walter F. George** of a bill covering the same field.

Now great a controversy would result over the divergent opinions on approach—a whether legislative or executive order would form the basis for reconstruction and its allied problems—remains to be seen. Both proposals lead in the same direction, both have the same objectives and in many respects both share the same principles. But while the Baruch report urges enactment of legislation following the lines of the proposal, Sen. George is known to oppose the following of legislation to fit Baruch's purposes and has made clear his intention of going ahead with legislative organizing in Congress and not the White House.

► **Effective Peacetime Legislation:** The Baruch-Hanoack report, which deals with all phases of the industrial demobilization problem, was promptly introduced in an executive order, and put into effect by James F. Byrnes, director of the Office of War Mobilization. Presumably, it will operate until legislation is enacted.

Most important provision of the Baruch report so far as the aircraft industry is concerned is that which creates within the OWM a surplus property administrator who will direct disposition of all government-owned aircraft facilities, as well as all other surplus property and capital equipment. Serving as chairman of a surplus property policy board, the administrator will make property to these four major outlets for disposition:

► **Commerce** route to the Treasury Procurement Division.

- **Capital and producer goods**, including all types of industrial property, to a single corporation within the Reconstruction Finance Corp.
- **Ships and maritime property** to the U. S. Maritime Commission.
- **Food** to the War Food Administration.

Under this plan, aircraft facilities will be disposed of by a unit of RFC, and there is little question but that this will be the Defense Plant Corp.

Acting quickly to implement the Baruch proposals, Byrnes named Will L. Clayton, former Assistant Secretary of Commerce, to the post of Surplus Property Administrator. Although not associated with Defense Plant Corp., the new administrator is a member of the Board of Directors of two RFC subsidiaries—Defense Supplies Corp. and the War Damage Corp.—and therefore familiar with RFC operations.

Immediately on taking over the job, Clayton acknowledged that the most momentous task faced him was disposition of the government-owned aircraft and plants.

► **Peacetime Problems:** "There's not much you can do in peacetime with a plant turned out 6,000 planes a month," Clayton said in a discussion of the peacetime problems raised by the aircraft industry.

In general, he declared, "Policy-making and supervision will be on our task." The actual work of disposal, he pointed out, would be done by existing agencies.

When war facilities are recommended to peacetime production Clayton said, the status of many plants will be very questionable and a number of them will have to be scrapped or converted into storage depots. He did not discuss this point fully.

► **Negotiations:** Aircraft contracts, under the Baruch plan would be terminated and settled by a committee between the aircraft companies and the procurement agencies. Thus, most aircraft manufacturers will find themselves negotiating with the War and Navy Departments when their contracts are terminated. Rating out the

2½% to Buy Planes

Two and one-half percent of the revenues of American plan to own as airplane after the war, according to figures released by the Northwestern National Life Insurance Co. Based on a poll of 28,000 investors, other figures released by Northwestern's new post-war purchasing plans included new cars, 30 percent, new homes, 20 percent, new radios, 20 percent, new refrigerators, 20 percent, 20 percent plan to take vacation trips, and 2 percent hope to buy farms.

Comptroller General's recent proposal to review all settlements before payment, the Baruch report recommended "Quick cash pending settlement" in the following terms:

Immediate payment in full for all completed articles.

On the uncompleted portion of the contract immediate payment in full of the government's estimate of "back" items which are great ordinarily is simple and on other items on which the government is able to satisfy itself, up to 50 percent of the contractor's total estimated costs.

Immediate payment in full of settlements with subcontractors as soon as approved.

Payment by government of interest on termination claims until settled.

As assurance against delays in validating claims, a new, simplified system of T Loans by local banks with government guarantees, to be available to all war contractors, planes and ships.

For those unable to obtain such loans from their local banks in 30 days, the government to make the loans directly.

Until the new T Loans are authorized by Congress, extension of V and VC Loans to all eligible borrowers.

Finally, for hardship cases, unable to use any of these means expedited settlements.

Of lesser importance, the Baruch report proposed creation of a "work director" (later changed to "re-training and re-employment director by Byrnes") to handle the "human side of demobilization", a general tightening of the entire industrial machine for both re-education and re-employment. The early review of all wartime materials controls and legislation measures to determine under what conditions these orders can be modified and the lighted hand

ding and advance planning of new contracts and contract cancellations.

Although the report specifically mentioned no airplane, such a provision and allocation power of the War Production Board beyond their expiration date, no mention was made of the part to be played in reconstruction—of any—by the Aircraft Production Board and the Aircraft Resources Control Office. The report did recommend, however, that WPB Industry Advisory Committees be strengthened.

► **Repetition Barred:** The Baruch report also urged speculation under whether or not David M. Nelson would remain as head of the War Production Board, since the agency would play a purely operational part in reconstruction and would have no voice in determination of policy on any of the four major phases—termination, disposal, re-employment, and financing. Despite the fact that Nelson is known to have said he would not head a WPB whose sole job was to carry out policies laid down from a higher level, it is generally believed that Nelson remains WPB's head and the Baruch plan as important enough to merit his occupation.

Whether Charles E. Wilson will stay on as executive vice-chairman, now that many issues seem settled, is considered doubtful. Most people close to WPB have felt that Wilson would stay as long as the top job of bombing reconstruction was open, but with that situation now gone, it is thought likely that Wilson will soon be able to convince the White House that his return to General Electric would aid the war effort.

The mission entrusted by Sen. George, and which may eventually become law and replace the Baruch plan now operating through executive order, would establish an Office of Demobilization, headed by a director who will also be chairman of a National Demobilization Board. The director would develop and coordinate unified programs for dealing with termination, financing, disposal, and other problems of demobilization. Like the executives created by the Baruch plan, the director would be under the Office of War Mobilization, but only for the duration.

Unlike the Baruch plan, the George measure would not let the aircraft industry—among others—for special treatment.

► **Aircraft Industry:** "No government agency shall dispose of any government-owned plants for pro-

duction of aircraft, synthetic rubber, aluminum, magnesium, or steel, or any government-owned equipment or facilities, unless such disposition is required by a valid contract provision in effect upon the enactment of this act," the measure states, adding that "The director shall prepare a study of such plants and facilities and report to Congress his recommendations for their disposal."

Chief point of difference between the two proposals is disagreement over an over-all administrator, such as that created by the George Bill. In many other respects, the proposals are parallel. However, the struggle now appearing inevitable will test to the point but over the question of who will plan reconstruction: Congress or the White House?

Burden to Retain Most of Air Duties

Expected to continue aviation responsibilities in new post as Assistant Secretary of Commerce.

William A. M. Burden, special aviation assistant to the Secretary of Commerce, expects to retain most of his present duties in his new post as Assistant Secretary of Commerce, a post which he was named last week by President Roosevelt.

Burden is widely known and highly regarded as an aviation authority and industrial man who has knowledge and experience would be lost to aviation activities of the department.



NORTH AFRICAN WARRIOR:

This veteran B-25 Mitchell desert warrior, of the North Air Force, which has reached the U. S. after participating in bombing missions from El Alamein across North Africa to Sicily. Bombs painted on the coating represent missions, while on the map are recorded individual tours and battlefield battles.

ACCA Group Urges Simplification Of Plane Certification System

Proposal by Chamber Technical Committee is part of program by an industry to modify delay and cost of U.S. regulation.

Recommendation by the Aeronautical Chamber of Commerce that the Civil Aeronautics Board and Administrator simplify their airplane type certification system is part of a broad move by aviation to assume more responsibility and to modify the delay and cost of government regulation.

The proposal was written by the Chamber's Aeronautical Technical Committee, following a meeting at St. Louis, Feb. 1 and 2, and submitted to the board and the administrator, Feb. 23. A covered letter from ATC suggested that CAB-CAA call a meeting within 45 days, to be attended by a five-man committee selected from the personnel of ATC and by representatives of any other interested groups.

Industry Greenlighted—Preparation of the recommendation began last September, when ATC circulated the industry with a preliminary draft, and later submitted reading comments from manufacturers. ATC will meet twice a year, next time in October, and will alternate between the East and West Coasts.

The board and the administrator have known of the ATC project right along and have expressed willingness to consider a revised certification program. It probably will be months before conclusive action can be taken. ATC says the submitted draft of the recommendation is by no means final. It is only a first step toward broad and perhaps extensive revision.

Some participants in this revision effort believe CAB-CAA has been complacent in some small degree. But the main causes of dissatisfaction in aircraft airworthiness circles are lack of government personnel to do the work and rapid accumulation of new data due to war operation of airplanes.

Action Appointed—The Aero Chamber's action in making this situation is applauded by many onlookers. CAB-CAA could not get engineers at civil service pay to do the job, but the Chamber is getting the industry's best men to work out a program without tak-

ing them off their regular jobs. Of the 41 aircraft manufacturers who signed approval of ATC's submitted draft, 35 had engineers in the St. Louis meeting. The rest gave their approval later.

ATC's recommendations on civil aircraft procedure cover both carrier and non-carrier types. In dealing with non-carrier planes, ATC overlaps the Chamber's Private Aircraft Department's program, but only on the matter of simplifying certification of airplanes. The department is trying also for revision of the certification of private planes, and for further certification of the air rules. Incidentally, the department is believed advocating blanket authorization of manufacturers to approve their own new types of planes, a much more drastic step than the ATC group is ready to undertake at this time.

The recommendation notes the establishment of an Airworthiness Requirements Committee by the Aero Chamber, discussed elsewhere in this issue.

Recommendation—Under the head of civil approval of military aircraft, ATC recommends that CAA give full consideration to existing war service records as a basis for granting airworthiness certificates to those models which may be of commercial value. CAA is called on to re-analyze its requirements in the light of current military experience, in the public interest.

Much of the information on performance of planes in Army's Air Transport Command and in Navy's Air Transport Service cannot be released for commercial use. But it is known that many aircraft in the services are carrying vastly greater loads than were permitted under Civil Air Regulations, apparently with good safety records. ATC recommends utmost use of the data and urges the Services to release them as early as possible. It is the Chamber's opinion that other branches of the Air Force and the Bureau of Aeronautics can contribute to the streamlining of CAB-CAA regulations. It is recommended that funds be set up for the Board and the administrator

to obtain and test representative military models.

Category System—The Committee also asks that CAB-CAA establish a suitable aircraft category system for administrative purposes. No mention is made of possible groupings, but Aviation News learned that a subdivision of four is being considered: 1, Transport; 2, Cargo, for goods only; 3, Aerobatics, to take unusual stresses; 4, Personal models for normal stresses.

ATC says the industry heartily endorses the policy of U. S. participation in discussions leading to international agreement on uniform airworthiness standards. At present, we have reciprocal agreements with other countries, that is, we permit them to fly planes here that could not be certified under our laws. Under this system, it is possible for countries having low airworthiness standards to build and fly airplanes at less cost, with economic advantage over countries having high standards.

'44 Plant Expansion To Top Half Billion

Estimated by WPB as 50 percent of 1935 cost of \$10,400,000 outlay on plane factories.

Construction of additional aircraft facilities in this country during 1944 is expected to exceed \$90,000,000, according to WPB estimates. This compares with the 1942 total of \$10,400,000 and \$1,272,000,000 in 1943.

Following the usual trend, the approximately \$50,000,000 of aircraft plant expansion slated for this year would be divided in this way: from \$400,000,000 to \$415,000,000 in machinery and equipment, from \$100,000,000 to \$110,000,000 in construction.

First Quarter Heaviest—The 1944 aircraft plant expansion will be heaviest in the first quarter—nearly \$300,000,000—with progressive declines later. Last year, aircraft activity held in the following quarterly peak first quarter—\$327,000,000; second—\$305,000,000; third—\$210,000,000; fourth—\$162,000,000.

Expansion work at aircraft plants is expected to hold or be only slightly under the December level (\$27,000,000) in the early months of 1944, due to the sizable volume of undelivered machinery and equipment of the present program and the strong rate of approvals for new work recently.



Fair weather or foul, the sharp-eyed crew of a navy patrol bomber is ready for anything. Air's submarine patrol. Carry cover. Bombing a naval objective. Laying mines. Making a perilous rescue. Or a task never done before. Whatever the mission, the performance of these gallant naval aviators is legend. So, too, is the performance of the planes they fly, a tribute to the diligence and skill of the men who make them. PESCO Products Co., 11610 Euclid Ave., Cleveland 6, Ohio (Division Borg-Warner)

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THE AIR WAR

COMMENTARY

New Russian Bombers and Bases Prepare for More Raids On Nazis

Soviet High Command gives major credit to aviation for victories in late 1943 and commentator reports that Russian independent bombing command may see extended action.

It is widely agreed that Russian superiority in tanks was a major factor in the victories of the Red Army in 1942. It is not so well known that the Soviet High Command is convinced that the great victories of the last half of 1943 are largely attributable to the superiority of aircraft employed by the revitalized Red Air Force.

A corollary is the realization of the immense value of the Allied air offensive in the west, which caused the transfer of hundreds of Luftwaffe fighters and pilots from the Western front to the defense of Nazi war industry. This has been recognized in official statements from Moscow.

Production Estimates—One of the first glimpses of what the Russians were doing in the way of increased aircraft production came in a statement of Vladimir Volynskii, who spent several days of his "round-the-world" fight visiting the new production facilities which had been set up since Germany's invasion in 1941.

He stated that Russia was at that time second in plane production only to the United States and England (about 5,000 and 3,000 per month, respectively, Germany's was about 3,000 per month at that time). If this estimate was accurate, the Russian figure at that stage would have been between 3,100 and 3,300 per month, probably a bit high.

Fifteen months later at Tientsin, Marshal Stalin announced that the Russian aircraft industry was producing 3,000 planes per month; however, this may be only combat types.

Ritz Almost Worked—When Hitler struck suddenly in June, 1941, he hoped to destroy the Soviet Air Force on its air fields and in the sky, and then knock out the aircraft and engine factories. No

doubt there was considerable exaggeration in Goebbels' reports of the "thousands" of Russian planes destroyed in the air and on the ground, but the fact is that Hitler came nearer achieving his initial objective than was realized at the time.

The Red Falcons put up the most heroic resistance in their slightly improved fighters of the Spanish Civil War, the I-16 Chamo (biplane) and I-16 biplane, but in speed, fire-power and maneuverability their planes were outclassed by the Messerschmitt and Heinkel fighters.

Such improved fighters as the Mig-3 (I-16) and Yak-1 (I-16)—"P" stands for a Russian word for "parasit" and corresponds to the Army Air Corps "P" designation) were just coming into production. After the Wehrmacht had been stopped before Moscow, Stalin summed up the situation by stating that as far as military aircraft

Motley Air Force

Returning pilots report that the Third Army is building up its Air Force, non-existent before the war, with an assortment of American, British, and German aircraft.

All the equipment now used by the neutral nation has been acquired by intercepting combat aircraft which have landed in Rumania. Purchases have been made from the country owning the planes. So far, the air force includes a few Spitfires, Hurricanes, German Messerschmitts, Heinkels, Junkers and several others.

was concerned, a new sheet would have to be made.

An Industry Revolution—In the autumn of 1941 an unusually skilled job was done in the wholesale evacuation of aircraft and engine factories far behind the endangered areas to the new industrial region beyond the Ural mountains, where already new plants were beginning to function. This resulted in a certain amount of dislocation, and during the winter of 1941-42 the entire Russian aircraft industry was drastically reorganized, and with the help of American technical experts, was re-adjusted to the assembly-line and conveyor-belt system of production.

No obsolete models were to be put into production, and Russian aeronautical engineers, including Tupolev (engineer), Yakovlev, Zhukovskii, Lavochkin, Gusevitch



LONGER RANGE FOR THE CORSAIR:

First picture of the Chance Vought P4U-1 Corsair Navy fighter with its new druggable fuel tank. The Pratt & Whitney powered craft made its debut in February, 1943, and scored up the gear with a record of 544 Jap planes destroyed. Only 108 Corsairs were lost.

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Get the Facts on the NEW **Mobilgas – Mobiloil** *FOR AIRCRAFT USE!*



Helping the mighty Martin "Man" smash world's records on its recent long distance flights were the two

Lawrence Aeroelectric Power Plants with which this famous airplane is equipped. These specially designed units,

like all other Lawrence models, make possible the wider use of electricity in aircraft by providing a dependable flow of current to operate such vital accessories as cargo hoists, main engine starters, radio, lights, and cabin heating and ventilating equipment.

Like the evolution of the huge Martin "Man", the development of Lawrence Aeroelectric Power marks a long step forward in the progress of air transportation.



LINDEN, NEW JERSEY

AVIATION NEWS • February 28, 1944

Lawrence Aeroelectric Models:

Model 72-B, 1200 Watts, 12 KW
Model 72-C, 1200 Watts, 12 KW
Model 72-D, 1200 Watts, 12 KW
Model 72-E, 1200 Watts, 12 KW



and Petriakoff, were to take full account of the strong points of American engine and German and British aircraft in their new designs, finally, they were to concentrate on a few superior types, mostly tested aircraft for cooperation with the Red Army.

New Models—The new planes include the famous IL-2 Sturmovik assault plane and dive-bomber, the IL-4 being the current model. The Yak-3 series of fighters is currently at the Yak-3 stage, many of them using considerable birch plywood construction, with glue of a phenol-formaldehyde base. The Lagg-3 was an all-plywood job, as is the new and smaller La-5.

A captured Yak-3 was tested in the Deutsche Versuchsanstalt near Berlin last spring, and an article in *Luftwaffen* concluded that this type of construction showed a surprisingly high strength. The Germans have since brought out a version of the Fw-190 with wooden wings.

These Russian fighters are in the 240-360 mph. speed bracket, and are armed with 20-mm. cannon and 127-mm machine guns. The IL-2 and -4 are heavily armed and have 30-mm. cannon and anti-tank rocket propellers, the latter also featuring the L.A.-5 T-28 designations. L.A.-5A, L.A.-5B, L.A.-5C are the first letters of the names of the above aircraft designers, MDG combining two and LAOG—these



BRITISH AIR CHIEFS:

Air Chief Marshal Sir Charles Portal, Chief of the Air Staff, visited Italy in order to advise air chiefs shortly before he became Marshal of the RAF. Shown, left to right, are Air Chief Marshal Sir Arthur Tedder (Air Officer Commanding-in-Chief, Mediterranean Air Command) now Deputy Commander-in-Chief, to General Eisenhower, European Theater, Air Chief Marshal, now Marshal of the RAF, Sir Charles Portal (Chief of Air Staff), Air Vice Marshal Broadhurst, (Air Officer Commanding Desert Air Force) and Air Marshal Sir Arthur Coningham (Air Officer Commanding North African Tactical Air Force.)

Strategic Bombers—The day is fast approaching when the Soviet Independent Bombing Command, which was reconstituted in the winter of 1942-43 under Gen. Goltovskiy (a Russian "Toby" Spats), may see extended action.

Its work in the spring of 1943 was highly effective, but the time

was not ripe for the full use of strategic firepower from Russia, nor was there sufficient equipment. The bases are now ready and improved versions of the TB-4 and DB-6A heavy bombers have been built up in quantity.

It is not likely that Liberators and Fortresses of the 15th Air Force, based in Italy, may share some of these bases for shuttle-bombing runs. Gen. Arnold's recent prognosis (December) of air blows against Germany from the east, the south and the west may be near fulfillment.

NATHANSON



NEW HELMETS REDUCE HEAD INJURIES:

Army Air Force's two new helmets which have reduced head injuries. On the left is the recently published M2, developed by Ordnance Dept. for the AAF, worn by most crew members. It is of one-piece type with hinged flaps to protect headphones. The M2 on right is for gunners who have limited space in their turrets. Both are worn over regulation flying helmets and protect wearers from low-velocity anti-aircraft shell fragments.

Gen. White Assigned To New Air Post

Appointed assistant chief of Air Staff Intelligence succeeding Maj. Gen. Doolittle.

Brig. Gen. Thomas D. White, former chief of staff of the Third Air Force, has been appointed assistant chief of Air Staff Intelligence to succeed Maj. Gen. Clayton L. Russell. Gen. Russell recently was assigned to the War Department's general staff as chief of the Intelligence Division.

Before being attached to the Third Air Force, Gen. White served as chief of the U. S. Military Air Mission to Brazil. He also served in China, Moscow, Italy and Greece.

Thousands of man -hours SAVED...



ON THE WAY TO THE ASSEMBLY LINE. Completely finished by Reynolds' skilled craftsmen these prefabricated plane parts, here being carefully inspected, will save manpower, plant space, transportation and scrap handling for your plane manufacturer.

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HERE'S one answer to your manpower shortage. An answer that's already saving thousands of precious man-hours of airplane labor for every leading manufacturer of combat planes.

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All of this is done for you, at the Reynolds plant, by workmen skilled in the prefabrication of the parts you use. Men in your plants who would ordinarily fabricate these parts can be used on assembly lines and in other important jobs.

Big savings in scrap handling realized

The Reynolds prefabricated plane parts service also does away with scrap handling. Aluminum scrap, which averages 30% of every sheet, is immediately re-cycled into prime sheet, then

prefabricated into more new parts, practically overnight. There is no needless cross-shipping of scrap. In figuring prices on parts, Reynolds allows plane manufacturers full price for scrap accumulated, thus saving entire cost of handling.

It is this kind of progressive thinking and co-operative planning that has resulted in an organization which now operates 60 plants in 14 states, and continues to grow by leaps and bounds. For Reynolds men are not satisfied to have been the first to supply finished plane parts from aluminum sheet. They have given themselves the continuous job of finding new ways to make aluminum better . . . easier and cheaper to use.

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ditions known to man, Titeflex ignition harnesses and flexible tubing have established themselves as standard equipment on the majority of America's wartime airplanes.

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AIRCRAFT PRODUCTION

Convair Sees Post-War Value In Intensive Research Program

Company's financial report, reflecting record operations in fiscal year, says work continues on 400-passenger craft, statement is first since Consolidated-Valve merger.

Intensive research and experimental activities have been carried on by Consolidated-Valve are indicated in the first report to stockholders issued since the merger of Consolidated Aircraft Corp. and Valve Aircraft Inc. in March, 1944.

While noting that its engineering skills at present are being devoted to the war program, the report adds significantly that the knowledge gained in designing military aircraft will be of definite value for post-war commercial aircraft.

New Transport Designed—Design engineering on new types of Consolidated-Valve planes is conducted at San Diego, Fort Worth, Valise Field, Stinson and the Stout Research Division and now under construction is a new military transport, similar to the Liberator Express, but with a larger fuselage to provide space for more efficient cargo and troop transportation.

The company is now engaged in development of a new four-engine, heavy bomber of advanced design, about which little can be said at this time.

400-Passenger Plane—Work continues on the giant airplane, designed as a transport able to make non-stop trips to Europe and return. It is large enough to accommodate 400 passengers by crisscrossing it with seats such as those used in military transports and 200 passengers or more in comfort on post-war trans-oceanic flights. More will be heard about this craft later, when supplies, too, in the new four-engine bomber.

The report reflects record-breaking production of warplanes and declares that the company's backlog at the end of the fiscal year was about \$3,900,000,000.

Financial Report—Net income from sales (including operations of Valve Aircraft for eight months only) amounted to \$19,987,941 after providing \$6,000,000 for post-

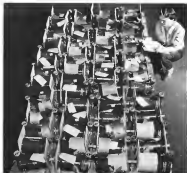
war adjustments. The net income includes, in a deduction from excess profits tax, a debt retirement fund of \$3,143,666 and a post-war refund of \$2,947,900.

The report said that, in the year ended Nov. 10 last, Consolidated-Valve reduced cost to government of airplanes and parts delivered by \$251,000,000 below original contract prices. These reductions, the report added, were made through voluntary refunds of cash and price reductions and amounts returned

for further cash refunds. They do not include the waiver of substantial amounts due under various provisions of contracts.

Refunds—Liquidation proceedings for the fiscal year have not yet been started and no indications had been given as to amount of refund the Price Adjustment Board believes should be made. Provision has been made by the company for a refund of \$50,000,000. Including this reserve, the total reduction to the government in price paid for airplanes and parts, including voluntary cash refunds and price reductions already made, amounted to approximately \$251,000,000.

The report said that if a further refund were required, as is to have been the case, the 1943 regulations conform to the settlement for the 1943 fiscal year, there would be a reduction of net income after taxes of approximately \$7,500,000. It was the management's opinion, however, that in view of the production record, the reduction in cost of airplanes to the government, refunds and reductions, no refund should be required in excess of the amount already provided.



"FLYING FORTRESS" GENERATORS.

Electric power for 15 Boeing Flying Fortresses will be produced by the 60 Westinghouse aircraft generators shown above as they receive a final check-up before shipment. Weighing only 62½ pounds, each of these generators will produce 1,700 watts of direct current at 28½ volts, 200 amp., when directly connected to an aircraft engine turning at 2,500 to 4,000 rpm.

New Research Group Formed by ACCA

Designed to meet needs of expanding aviation industry.

To meet the growing need of the industry and related activities for a clearing house of authoritative information, a Research and Statistics Department of the Aeronautical Chamber of Commerce has been organized.

Plans for exchanging data assembled by that department and similar units in aviation, publishing and other organizations were announced at a luncheon meeting in New York attended by engineers, newspaper and research organization representatives.

Program.—J. Carlin Ward, Jr., President of the Chamber, presided and outlined the program of the new department, emphasizing the necessity now and the increasing importance of authoritative information along statistical lines to the welfare of the industry generally. The industry, he said, was eager to cooperate with the research and statistics departments of organizations dealing with the industry and besought cooperation for mutual benefit.

Representatives of various organizations present discussed the Chamber's plans, covering general approval and offering cooperation in the project, after E. Earle Lockheed, manager of the Chamber's department explained his program.

Cooperation.—The department must necessarily have the full cooperation of Chamber members in order to gather and compile information necessary for a complete statistical picture of the industry as it now is operating and as it will operate in the future.

Information about the aircraft industry is now scattered and the sources widely separated. The department will coordinate the activities of individual companies, in government agencies, financial houses, aviation insurance companies, publishing houses, Aircraft War Production Councils and the Chamber itself.

'Helldiver' Output Tops 6-Month Total

Output of Navy's Helldiver dive-bomber was greater in January than in the first half of 1943, according to J. P. Davey, general manager, Curtiss-Wright Corp., plant at Columbus, who received

congratulatory telegrams from Navy and War Production Board on the production.

Charles E. Wilson, chairman of the Aircraft Production Board, noted that the plant had met the January schedule and Near Admiral Dwight Clinton Ramsey, chief of the Bureau of Aeronautics, lauded the output and said "no data you have delivered more than your scheduled number of these powerful offensive dive-bombers to the fleet and have set a record for Helldiver production in January."

Air Absorbs Shock Of Landing Planes

Firestone announces development of new pneumatic spring.

Development of a new-type landing mechanism called an air-spring strut, which harnesses air to absorb the shocks of surprise landings, takeoffs and taxiing runs, has been announced by Firestone Tire and Rubber Co.

Engineers of the company say tests show that the air-spring strut adds to the comfort and safety of flying, increases the life of airplanes and reduces maintenance costs through elimination of landing shocks and taxiing vibrations. The air is the new land-

ing mechanism is confined in a flexible rubberized container which operates somewhat like an air-cushion bellows. With the air-spring, the shock-absorbing properties of a pneumatic tire are suggested as the landing strut.

Repairs Old.—Old has been generally tossed helter-skelter to check the safety of an airplane's first impact on landing, being confined and forced through a small hole at high pressure. The Firestone air spring uses an identical principle, except that a large volume of air at low pressure is used instead of oil. The design of the air spring eliminates pressure-tight sliding joints and their leakage and friction troubles.

Production of the air-spring is now under way and Firestone engineers expect it to play an important part not only in wartime application but also in the post-war aviation picture. The mechanism can be engineered to fit any airplane.

5,000th Corsair

Chance Vought Aircraft Division of United Aircraft Corp. has delivered its 5,000th airplane since the company's founding in 1917—an F4U-1 Corsair fighter for the Navy. Near the end of 1943, Chance Vought completed its 2,000th F4U.



ACCA Research and Statistics. Behind the new Research and Statistics Committee of the Aeronautical Chamber of Commerce are three men, photographed at a recent meeting in New York. Seated, left to right: J. P. Davey, general manager of the Chamber; J. E. Ramsey, Jr., manager of market research for Republic Aviation and chairman of the committee; J. Carlin Ward, Jr., president of Fairchild Engine and Airplane Corp. and Chamber vice-president and (standing) E. Earle Lockheed, manager of the Chamber research and statistical department and James C. Wilson, Curtiss-Wright Corp.

Lockheed Engine Changed in 27 1/2 Min.

Company reports "power egg" system developed to speed power plant replacement.

A so-called "power egg" system, which permits a complete change of aircraft power plant in 27 1/2 minutes has been designed by Lockheed engineers and applied to a new four-cylinder C-39 Constellation, reducing the ground time for maintenance of a transport airplane to a few days.

The 27 1/2-minute engine change has been made by Lockheed Flight test crews supervised by designers of the power egg—Hill L. Hibbard, vice-president and chief engineer, and C. L. (Kelly) Johnson, chief research engineer.

Connections Easily Reached.—In order to achieve this interchangeability, particular attention was paid to the arrangement of joints, ducts and connections at the fire wall, with quick disconnects for all units. Collector rings on the big Wright twin-row 2200 hp engines exhaust through two pipe ducts, which pass the pressure through the cowling of the power egg shell, and the nacelle is fixed to the airplane at the fire wall by only one mounting bolt, all readily accessible.

Assembly—Simple and procedure of the exchange are as follows: 1. Carburetor air scoop removed to attach heat duct connections at fire wall started (3 min.). 2. Transmissions completed, heat sink secured, engine ready to be lowered (9 min.). 3. Engine swung aside and lowered (11 min.). 4. New power plant swung into place preparatory to securing all service connections (15 min.). 5. Engine in place, structural, electrical, hydraulic and cable connections being made (23 min.). 6. New power plant completely installed, ready for operation to be pulled through (27 1/2 min.).

Lockheed engineers said that, aside from its unique interchangeability, the Constellation's nacelle is designed that it uses 2,200 hp, but no more horsepower than the power Lockheed ships required in housing 800 hp.

High Speed Bistable Machine.—Another speed-up process designed by Lockheed is the replacement of the C-39's 33,600 to 35,800 r.p.m. as to be, compared with the normal hourly rate of 330 Rpm. Gm., Lockheed manufacturing engineer, who invented the machine,



Record Power Plant Change.—Lockheed engineers have developed a "power egg" system which permits a complete change of power plant in 27 1/2 minutes, which has been applied to the new four-cylinder Lockheed Constellation. Photograph shows one of the steps in the quick exchange.

says it cratches and roars in a continuous operation and is adaptable to any airplane surface. He said three men in six minutes could do work normally requiring 100 man-hours.

50 Firms Working On Helicopters

New book lists U. S. companies in field and assesses rotary wing future.

At least 50 companies are engaged in development or manufacture of helicopters, according to a new book, "The Helicopters Are Coming," just published.

Although conceding that many bugs remain in rotary wing craft, which will prevent wide public use for a time C. B. F. Macaulay, in what is described as the first popular book on the subject, looks out for those who see little future for such aircraft.

No Comparison with Auto.—None of the gentlemen who find it their duty to warn the public against anti-roping parties (helicopters for a decade as two compare helicopters at their present stage of development with the automobile of 35 years ago and airplanes of 25 years ago, and estimate that a similar amount of time will elapse before the helicopter arrives in every man's life.

While this unfriendly account in part for the large numbers of organizations and individuals who are working hard and strenuously in the development or manufacture of helicopters, it also indicates a strong faith by noted technicians in the future of this craft.

He points out that unlike the car, the helicopter does not need fuel, stable engines or powerful wheels as an aid to motion. It does not start from scratch. It is an offshoot of the plane "It did not take 30 or 40 years to develop a ship."

Blade Problems Solved.—Hannay, former managing editor of Aviation and later editor of Air Tech, now is assistant to the director of public relations for Fairchild Engine & Airplane Corp. He reports that blade selection is no longer a problem which previously stood in the way of safe and efficient helicopter flight have been worked out. Improving rotors, simplifying are going on and soon will be.

Money, engineering brains, mechanical genius and production facilities now being utilized—much in secrecy—are as a scale so far beyond these checked risks and uncertainties that the writer has no comparison is possible, the writer says.

First Prices High.—The first few helicopters may be at an average cost of the first year, at a price of \$100,000 to \$150,000, a median-priced car. They will "naturally require more care and expense in upkeep."

But the ability of the helicopter to go places and do things impossible for cars or airplanes will more than offset its initial economic disadvantages, the book says. From there on, there will be a steady decrease in cost and upkeep, better performance and constantly widening use of the air.

May Have Jet.—The single-rotor model probably will win out commercially. Some jet propulsion application may remove torque reaction. Many devotee lyrics will develop.

The helicopter holds itself to mass production to a greater extent than conventional aircraft now being turned out. Cost of production is high but will soon be high, than that of an airplane of comparable weight-carrying capacity.

No Patent Restrictions.—Basic patents on rotors and their arrangements were issued 30 to 35 years ago and are no longer restricted. That shows the field wide open to all manufacturers.

While this unfriendly account in part for the large numbers of organizations and individuals who are working hard and strenuously in the development or manufacture of helicopters, it also indicates a strong faith by noted technicians in the future of this craft.

CAB Grants National Airlines Extension of Florida-N.Y. Route

Board authorizes competition along productive eastern seaboard and at same time puts one of smaller companies into field covered only by Eastern.

By MIRIAM MICKEL

The Civil Aeronautics Board, through last week's decision giving National Airlines an extension of its Florida route to New York, authorized competition along the productive eastern seaboard and at the same time put one of the smaller airlines into a field in which a big company—Eastern Air Lines—has been the only operator.

The stress the Board laid on the competitive angle was to some regard a repudiation of the principles outlined last summer when Western Air Lines was granted the right to operate between Los An-

gelen and San Francisco, where United previously had been alone. **Competition**—It stated again that "there is a strong, although not conclusive, presumption in favor of competition on any route which offers sufficient traffic to support competing services without unreasonable expense of total operating cost."

National applied almost four years ago for a route to New York. However, it cannot operate the new route until equipment is available. The authorization carried the usual restrictions that serv-

ice shall not be started until the national defense no longer requires that it be delayed. The line was reported to be starting to use Convettaircraft when they become available after the war.

Extends Route—The Board's decision would permit National to extend its route (AM 51) between Miami and Jacksonville via Tampa on to New York, via Savannah, Charleston, Wilmington, Norfolk and Philadelphia, except as to local traffic between Philadelphia and New York, and to include West Palm Beach between Tampa and Miami.

Eastern was authorized to extend AM 46 from Tampa to Miami, with the proviso that flights between these points originate at Tampa at Atlanta or Birmingham or points north. This extension makes a connection between existing Florida services and establishes a major carrier service to Miami via Florida's west coast, since 46 connects Tampa with Tallahassee.

Two Applications Denied—Applications by Southeast Airways for service between New York and New Orleans and New York and Miami, and Pennsylvania-Central's request for local service between Rocky Mount, N. C., and Jack-

National Stock Up

National Airlines stock took a sharp rise the day after the CAB decision giving the line authority to operate a route between Florida and New York. Advancers and it rose 1/8 points to 27 in one day.

vile, Fla., were denied by the Board.

The Board eliminated from the docket an application by Colonial Airlines for a route between New York and Nassau, consolidating this request with other applications for routes between the United States and Latin America, to be heard May 15.

Morgan Takes Over State Dept. Post

Former DSC vice-president to have charge of assessing work of Aviation Division.

Increasing work of the Aviation Division of the State Department is to be directed by Stokely Morgan who, as vice-president of Defense Supplies Corp., has been in charge of its federal aviation program.

Morgan was on the job before official announcement of his new assignment. Chief of the division, he will be assisted by Joe D. Walstrom, who had charge of the work before the aviation section became a full division in the recent State Department reorganization.

Diplomatic Role—Indications are that the functions under the new set-up will be much the same as in the past. Staff personnel is being added as the work grows in volume.

The Division cooperates with other interested government agencies in several fields. Its role is largely diplomatic, fighting rights for American airlines overseas are negotiated by the State Department with final decision up to the Civil Aeronautics Board. Foreign airlines seeking authorization to enter into this country must file first through the State Department.

Flight Permits—American membership in international aeronautical bodies, such as the International Technical Committee of Legal Experts and the Permanent American Aeronautical Commission, is maintained through the State Department.

Permits for special flights into or out of the country are granted for

both civil and military craft by the Department. Training given citizens of foreign countries is arranged by and carried out by the Civil Aeronautics Administration.

Other Functions—These and other functions will continue to be the responsibility of the Aviation Division during the war. Post-war functions, not yet publicly outlined, may be more far-reaching. Reports even now are being prepared by the State Department on post-war transport problems.

The division formerly was one of three sections under the Depart-



STOKELY MORGAN

ment's Transportation and Communications Division. Walstrom, who has been its acting chief, points out that although the State Department is concerned primarily with transport and cargo it is the agency in which foreign governments, particularly Latin American, appeal for needed civil and military equipment. The State Department personnel in these recommendations is the Maritime Assignment Board.

Experience—Morgan and Walstrom have wide aviation and diplomatic experience. Former Pan American Airways executive from 1918 to 1940, Morgan joined the DSC in 1942 and there had a hand in the de-Germanization of the Axis airlines in Latin America. He was assistant chief of the Department's Division of Latin American Affairs from 1945 to 1957 and chief for the next two years. Earlier, he was at London, Copenhagen, La Paz, Bogota, Lima, Panama and Tegucigalpa, Honduras.

Walstrom, a former service officer, has handled Embassy matters on aviation in Guatemala, Bangkok, Sumatra and Buenos Aires. In 1939 and 1940, he was with an airline in Mexico.

Tipton to Head ATA Legal Staff

Former assistant general counsel at CAB to build up own force.

Air Transport Association is planning on building its own legal staff, with Stuart G. Tipton, former assistant general counsel at the Civil Aeronautics Board as head.

Tipton already has gone to ATA, where his future staff probably will consist of three or four legal assistants and secretarial aides. At CAB, present intention is that John H. Warner will succeed Tipton, although he has not yet moved into the job. Warner has been chief of the Economic Operations Section in the general counsel's office.

Westwood to Aid—For a while, Tipton will have the aid and advice of Howard C. Westwood, member of the Washington law firm that is reintegrating the ATA account by June 30. Westwood has assisted his draft examination, but indication is being delayed so that he may help the new counsel.

Tipton helped draft the Civil Aeronautics Act and formerly was head of the CAA's enforcement division. Later he became CAB assistant general counsel to handle safety regulations, and was chief of Operations, Legal Division, when he resigned. One of his last official duties was the drafting of the new streamlined air traffic rules submitted for industry comment.

Robert McConrath, ATA's man in charge of personnel and labor matters is to enter the service soon.

Head of New Haven Explains Air 'Ad'

Significant of an advertisement published last December by the New Haven Railroad, in which it urged "coordination of interests between air and railway service and our rail and highway systems," became apparent when Harold S. Palmer, president and trustee of the New Haven, talked before the Aviation Section of the Senate.

Palmer said that, if surface carriers were permitted to get into the air, his railroad "should soon be able to announce the formation of a coordinated rail-air-highway system." He said "New England." He cited the New Haven's knowledge of the territory and said its participation in such a tie-up would advance "by years" the progress of the affected states.



CONFEREES AT KANSAS STATE MEETING:

Picture shows some of the conferees at the Kansas State Aviation Conference at Wichita. Seated, left to right: John G. Stata, Topeka, executive director Kansas League of Municipalities; Andy S. Bowman, Wichita, conference chairman; Wilbur J. Lawson, Dallas, special representative Braniff Airways; Alfred MacDonald, director of Wichita Parks and Airports and regional director, American Association of Airport Executives; T. E. Flaherty, Kansas City, St. CAA regional supervisor of airports. Standing

left to right: Donald A. Dyer, Denver, assistant to executive vice-president, Continental Air Lines; Donald Pratt, Emporia, Kan., president P-T Air Service; Don Flosser, Wichita, sales manager Central Airways Co.; Mayor E. Arthur Brown of Dodge City; E. B. Warren, Kansas City, assistant to the vice-president of traffic of TWA; and Warren Blumer, Wichita, personal director of Beach Airways Corp. and former assistant manager of the Wichita Chamber of Commerce.

Applications Filed For 3 More Routes

Permits asked for Las Vegas-Coron City Bay, Alaska area and Washington-Ocean City, service

Desert Airways, Inc., a Nevada corporation with its business address at Van Field Airport, Los Angeles, has applied to the Civil Aeronautics Board for a passenger route between Las Vegas and Ocean City, Nev., via Elko and Reno, Nev. The line would operate one daylight flight daily each direction, using single-engine Waco, Stearman or Beechcraft airplanes.

The application stipulates that Desert Airways would carry mail and goods at a later date if conditions warrant, and switch to twin-engine aircraft when such equipment becomes available. The same request has been filed with Nevada Public Service Commission.

Alaska Service—Wahluke Air Service of Dillingham Alaska, contending three other lines have failed to provide adequate service in the Bristol Bay area, applied for the following three non-scheduled operations for passengers, property and mail between Dillingham and Nikiski via intermediate points; transportation of workers during the mining season from Dillingham to Good News Bay, Bethel and Chukchee; transportation of mail under sub-contract to Woodley Airways from Nikiski to various points in Bristol Bay area.

Helicopter Line—Allynson John Fahy, 31-year old Washingtonian, applies to operate a daily helicopter

service for passengers, freight, mail, express and local pick-ups and delivery from Washington, D. C., to Ocean City, Md. by two routes.

Fahy would use 14-passenger craft capable of carrying a 3,000-pound payload. He suggested as possible terminal points in Washington the Union Station Plaza, the Mall, some wide street downtown or the top of a department store.

CAB Maps Hearing On 8 Applications

Consolidates filings for service in Washington-Mineral area

The Civil Aeronautics Board has consolidated applications for service in the area generally bounded by Washington, D. C., Trenton, Ottawa and Montreal, Canada, and Buffalo, and announced it soon will open the proceeding. Pre-hearing conference was set for Feb. 28.

Lines presently involved are American, Eastern, Hyden Flying Service, Union Airways, Colonial, Page Airways, Pennsylvania-Central and United. Proposals for service in this area, in various applications filed with the Board, were severed from the original applications and consolidated into the proceeding.

Service Proposed—The applications now before service as follows:

American Airlines—AM 7 to include as intermediate points Reno and Bangor, Minn., and Johnston City, N. Y. between Seattle and Syracuse AM 7 to

be extended from Wilkes-Barre to Philadelphia via Allentown and Bethlehem, Pa.; Syracuse to Philadelphia, Syracuse to Montreal via Watertown and Massena, N. Y.

Eastern Air Lines—Washington, D. C. to Syracuse via Baltimore, Rockville, Md.; Baltimore and Washington and Bangor, N. Y., and beyond Syracuse to Ottawa and Montreal.

Hyden Flying Service—Buffalo to Rochester, Rochester to New York, Rochester to Massena, Rochester to Washington, Bangor, Minn. to Philadelphia, Bangor, Minn. to Syracuse, all via several intermediate points.

Union Airways—Hagerstown, Md. to Scranton, Hagerstown to Rochester, Hagerstown to Washington, all via intermediate points.

Colonial Airlines—New York to Massena via Bangor, Minn., Watertown and Waterville; Massena to Washington, D. C., via Watertown, Syracuse, Bangor, Minn., Hagerstown, Pa., with Lancaster and York, Pa., as alternate to Hagerstown; Massena to Ottawa and Massena to Montreal, Bangor, Minn. to Ottawa.

Page Airways—Washington to Rochester via Hagerstown, Md.; Hagerstown, Barbours, Williamsport, Pa., Elkins and Denver, N. Y.

Pennsylvania-Central Airlines—Buffalo to Ottawa via Rochester, Washington to Syracuse via Baltimore, Washington, Philadelphia, Allentown-Bethlehem, Wilkes-Barre, Scranton and Bangor, Minn., Syracuse to Montreal via Ottawa, Shaded Air Lines—Cleveland to Montreal via Erie, Pa., Buffalo, Rochester and Ottawa.

Two CAA Employees On 'Lost' Plane

Two Civil Aeronautics Administration employees were on a plane declared by the Navy to be overdue and presumed lost at sea on a flight from the Pacific Northwest to Seattle.

First hint were about the plane appeared under Navy contract by Pan American. They included five crew members, five men in the Naval Service, the two CAA men and two other Pan American men.

Robin Missing—One of the CAA employees missing is David R. Robinson, who has been assistant civil engineer for Federal Airways at Anshorage. Raymond S. Griffin

was assistant chief aircraft maintenance at Burlington, Iowa. Robinson joined CAA in 1943 and Griffin in 1938.

Wreckage and a life raft were found whose plane was believed to have gone down but there was no trace of survivors.

'Clipper' Cheques

A check system to enable the world air traveler better to cope with the currency situation is the different countries he visits has been devised by Pan American Airways. "Clipper Air Cheques," as PAA calls them, are



designed with consideration for post-war use as well as to ease the monetary difficulties of the wartime traveler.

Talman Discusses Plane Conversion

Commercial air transport will have to look to its planes, rather than converted military transports, for useful operation after the war, although the latter may be of temporary value until the new ships are available. E. Lee Talman, executive vice-president of Transcontinental and Western Air, told the New York Society Dairies' Association.

Talman sees commercial air transportation, domestic and international, with long post-war dates to provide a market to maintain aircraft production facilities, to continue pioneering in aircraft development to the benefit of military aviation, as impetus to commerce and hence promotion of post-war employment, and improvement of communication and travel toward international understanding and good will.

BOAC Mileage

Gains 25 Percent

Tonals 12,681,695 in 1945, British Air Ministry reveals

British Overseas Airways Corp. flew 12,681,695 miles in 1945, a 25 percent increase over 1942 and the equivalent of one and one-third times around the world every day.

The line, which is controlled directly by the British Air Ministry, released figures on its 1945 operations last week and outlined the routes it operates.

Freight Loads Increase—These statistics showed that the greatest increase in its operations was in freight. In 1945, BOAC carried 3,673 tons of freight compared with 2,139 in 1942, or an increase of 73.6 percent. Increases also were shown in passenger mail, freight ton miles, total traffic ton miles, total passengers carried and mail carried. Only decrease was 6.9 percent in mail ton miles.

BOAC operates over 36,000 route miles. Some of the routes which security regulations permitted to be made public are:

United Kingdom—Canada, 3,200 miles; United Kingdom—United States a direct route in summer with three stops in winter to include Portland, Baltimore, New York, Trinidad and Bermuda; United Kingdom—Ireland a shuttle service which connects Pan American Airways and American Export Lines; France—Africa services with England; United Kingdom—Portugal, Gibraltar; North Africa; Egypt; United Kingdom—Sweden.

1,844-Mile Route—From Cairo, BOAC operates services throughout the Middle East, Africa and to India. Longest route given is the report is the Hornbeast Route, 8,000 miles by flying east from South Africa to India.

ATS Group to Meet

Members of the Aeronautical Training Society, doing flight training for the Army Air Forces and the United Nations, will hold a regional meeting in Los Angeles Mar. 6. Some 18 schools in the far western states will be represented according to J. Wendell Coates, president of ATS.

A post-war aviation program will be the theme of the convention, with reports on flying safety, manpower utilization and other educational ATS projects.



CHILEAN AIRMEN AT TREASURE ISLAND:

The Chilean Air Force is shown as it visited Pan American's base at Treasure Island. Left to right: Col. Raul Gonzalez, chief of the mission, Lt. Gen. Manuel Tassara Alvarez, General de Aere and Commander in Chief of the Chilean Air Force, Adolfo Oyarzabal, and Brig. Gen. Oscar Herrero Walker, Commander del Aire and chief of staff of the Chilean Air Force.



... one reason why many aircraft makers turn to Mercury for vital parts is our ability to maintain required delivery schedules . . . superior craftsmanship and the know how which comes from long experience enables us to get production through on time.

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PERSONNEL



Kansas City, Kan.

In Stuart Wilson, New York financial and accounting executive, has been elected vice-president and in charge of Business Development Corp. Wilson's headquarters will be at the Electronics division of the company, with offices located in

Kenneth C. Ross has joined Howard Aircraft Corp. as assistant to the president. Ross was previously officer for the OCA in Washington before his recent appointment.

Eloyd D. Bross, vice-president of Paul National Bank of Boston has been elected a director of Republic Aviation Corp.

Joel Miller, former partner of W. J. Newman Advertising Agency, Lakewood, Colo., has become advertising art director for Aerojet Aeroquip Mfg. & Supply Corp., North Hollywood, Calif.

J. Carl Roberts, formerly advertising manager of Transcontinental and Western Air, Inc., has rejoined the Chicago office of J. Walter Thompson Co., to serve as director of sales promotion on the Ford Motor Co. account.

Pan American's Atlantic division announces a change of administrative personnel.

Leslie G. Brown has been appointed assistant to the vice-president in charge of operations of Braniff Airways. Brown is returning to Braniff after serving as a captain in the Air Transport Command for nearly two years. He will coordinate flight operations, ground operations, maintenance, purchasing, operations engineering, military cargo operations and departmental personnel.



F. Jack McInnis has been named assistant to the vice-president in charge of manufacturing at Ryan Aeronautical Co. He was formerly with Consolidated's Fort Worth branch. Mr. Thompson has been promoted to assistant control administrator at Ryan Aeronautical Co.



Paul Gilman Lavin, who has been assistant secretary and assistant treasurer of American Airlines, Inc., has been named controller.

Walter L. Marston has been named vice-president of Pan American Airways, in charge of the newly formed Latin American Division, which consolidated the operations of the former eastern and western divisions.



NEW PAA DIVISION HEAD: L. C. Reynolds, former acting manager of the trans-Pacific division of Pan American, has consolidated it into a single administrative unit at the airline's Ocean-Pacific and Alaska routes, with Headquarters in San Francisco.

out in flight personnel. Capt. Harold E. Gray, first man to fly the Kears, becomes dream operations manager and will have charge of the operations, maintenance, meteorology and communications department. Captain Gray was the first PAA pilot to be designated master pilot.

George Robert J. C. Minter, USN (retired) and Lt. Col. George John E. Park, USN, have been detached from duties in the Aviation Training Division of the Navy's Bureau of Aeronautics.

George Wilford K. Gaudin, USN (retired) has been detached from the Navy's Bureau of Aeronautics Engineering division.

George Paul J. Doolittle, USN, has succeeded George Frederick N. Krantz, USN, as assistant director of the Aviation Training division in the Navy's Bureau of Aeronautics.

Capt. Newton Taylor, USN, has been detached from the Navy's Aviation Planning division of the Bureau of Aeronautics.

Joseph Gendrick, formerly with the Social Security Board in New York, has become supervisor of employee services for Fairchild Aircraft Corp. H. M. Mink has been appointed as chief general manager of Fairchild Burlington plant, instead of general manager as was announced previously.

W. A. Augustine, formerly executive assistant to T. P. Wright and head of the Aircraft Resources Control Office, has resigned and returned to Republic Aviation Corp., which he had left to work with the old War Production Board Aircraft Production Division. When the division was abolished, he returned with ARCO. Taking over some of Augustine's duties is Lt. Col. Allen G. Mure, USN, who was with WPB's Aircraft Production Division prior to joining the Navy. Augustine's engineering duties have been divided among the personnel of ARCO.

George David G. Clark, formerly industrial relations director for Sperry Gyroscope Co., Inc., has been appointed special assistant to the Assistant Secretary of the Navy. Ralph A. Bard, Jr. has been named in charge of the Industrial Relations Section of the division of Shore Establishments.

Ed A. Norwood (photo) has been named assistant chief engineer of the Navy's BuAer.



also announced appointment of Louis Marston as general superintendent. J. M. Berk is director of engineering for pump and compressor design, and John A. Lusk as chief engineer, pump department.

Charles Marva has been named chief engineer of Consolidated Vultee's Fort Worth division, succeeding C. L. B. Barlow, who has been detached from the Douglas and Lockheed programs.

H. C. Galt has been appointed contract coordinator for the Avian division of General Motors Corp., to supervise contracts with government agencies in connection with orders for Allison liquid-cooled engines.



He has been district manager for Propulsion division of General Motors of New Orleans and Kansas City.

B. A. Shapard becomes station manager at Tokyo, Kan. Kenneth G. Campbell will replace him at Bal-



INTELLIGENCE CHIEF:

Brig. Gen. Thomas D. White who has succeeded Maj. Gen. Clayton Russell, as assistant chief of Air Staff Intelligence, has returned to the staff remains the same as under General Russell. General Russell is now chief of the Intelligence division, War Department General Staff.

mean, Ken Gue J. Cox has been named station manager at Tulsa, Okla., and will be replaced at La Jolla, Calif., by Norwood Park from Pueblo.

Rear Admiral Arthur W. Radford was named the Legion of Merit for outstanding service as director of aviation training in the Navy's Bureau of Aeronautics.

Robert T. Hines, station agent at Albuquerque, N. M., has been promoted to station manager at Corbin, N. M.



PCA PILOTS IN AIR CORPS:

Three former Pennsylvania-Central Airlines pilots now in the AAF are posted with Marine Corps, chief station of PCA's western division. Left to right are Capt. Richard M. Hinton, Major James B. Forsythe, and Major Keith G. Carline. Hinton has won the Distinguished Flying Cross with Oak Charter and the Air Medal with Oak Charter for having completed 100 kilometers in the Air Medal theater of war. He and Forsythe recently returned from the China theater.

F. E. Floyd formerly sales manager of the Chicago district of the All-American Lufthansa Steel Corp., has been appointed assistant general manager of sales for the corporation. Floyd has been chief of the stainless steel, Steel Division, of the War Production Board with offices in Washington.

Howard Field, Jr., former aircraft hydraulic engineer, has opened a new office as a consulting engineer and is located in Los Angeles. He has been with North American Aviation, an engineering department for the past seven and a half years prior to opening his office.



Continental Air Lines has announced the following transfers and promotions, some effective now and some when they start service over Route 66, between Denver and Kansas City. F. A. Lewis will be district manager and Lawrence B. Babb will be station manager at Kansas City. Joe Mohr from the Denver office will work with Lewis in the Kansas City office. Traffic agents at Kansas City will include H. D. Cook from Denver and Phil Howard from St. Paul. Station agents include Kenneth Barman and Anne Babbins, both from Tulsa, and Harold Ferguson from Kansas City. H. H. Hays, Kansas City, will be station manager at Corbin, N. M.

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Babson Reflects Popular Stand On Airline and Industry Stocks

Bearish on aviation manufacturing issues and bullish on transportation equities, although current prices are believed to have discounted post-war outlook on both to large extent.

By ROGER WILCO

The airlines are strongly favored and the aircraft group virtually discarded in an undated study released by Roger W. Babson, chairman of the board, Babson & Co., an investment advisory service.

The survey, entitled, "The Future of Air Transport," deals in generalities.

It is significant, however, in that it reflects a type of investment philosophy that has become popular in equities and depressed aircraft securities in recent times.

Post-War Fears—Babson asserts, "... hundreds of thousands of men have been introduced to air transportation. Their enthusiasm for this entire industry forecasts an expansion which will make the post-war of railroads look so." The aircrafts are to be cashed off with the familiar post-war fears.

Now, both of these broad premises are substantially correct—provided they are properly qualified, which Babson fails to do. In addition, a fundamental failure to successful investment exists.

Discouraged—All things are relative—and that is never more true than prices in the marketplace. The airlines have a glowing future, but equities of a growing future have narrowed that optimism in a liberal measure. Of course, the aircraft industry will have difficulties after the war but prices have materially discounted this factor. This is not to say that airline shares are too high and aircraft equities too low. It merely means that current prices already reflect the known factors in their exact total.

Evaluating the future prospects of an industry with current prices is the key to successful investment. For example, the air transport

group has far years been accorded the best "investing prospects" of any industry and therefore was popularly supposed to have the most attractive investment opportunities. Actually, however, it remained for discarded securities of an industry relegated to the discarded group, to record the best gains in the market in recent years.

Railroad Bench—Bonds of railroads, long in vogue, had fallen sharply in price because of general investment demand to the long-term trends of the industry and the then-existing status of the securities. Yet many of these long-range issues rose more than a hundred-fold and contributed the most liberal profits to discerning investors. The sudden reversal albeit temporary, in railroad fortunes together with reorganization developments impelled dramatic factors to these detailed bonds. All prices are relative; many railroad bonds at 100 cents on the dollar were high but at 5 and 30 cents on the dollar were decidedly underbought.

Bendix Helicopter

Vincent Bendix, industrialist, will announce shortly a new helicopter. Inspired from a picture of this new helicopter show it to be egg-shaped, with apparently no rotor. It is maintained by a double contra-rotating propeller system. It is a four-seater, fully plane with enclosed variable upper portion is almost completely covered with a transparent plastic. It has a low, tricycle landing gear which would show high-speed driving.

This type of investment reasoning may find its counterpart in viewing securities of the two aviation groups. The most glamorous equities are not always the most profitable.

Favored Issues—Returning to the Babson survey, a number of airlines appear to be favored for purchase and one company recommended for sale. The basis for these conclusions, along with certain general statements in the basic study, is lacking in consistency. The air carrier favored are United, Pan American, American and Eastern. Liquidation of TWA is recommended.

Among other things, Babson asserts that the air lines "have no problems concerning fixed charges, production contracts or labor. The air transport companies will be carrying passengers and freight regardless of the up and down of the airplane manufacturing companies."

Furthermore, as a major basis for regarding disposal of TWA, the recent mail rate cut for this carrier is cited.

Mail Rate Factor—As a matter of fact, all domestic carriers recommended by Babson were given the same mail rate. Moreover, there is considerable speculation as to continued mail rate reductions to be ordered by the Civil Aeronautics Board. This factor is a variation in the considerable influence a federal regulatory agency exercises over the industry and the many unknowns it introduces.

The air carrier may not have any problems in the direction decided by Babson but that does not mean that they are worry-free.

The costs of air operations are steadily rising, a greater burden of airport financing and the expensive process of expansion are some of the factors the airlines are facing. There are many others.

Landing Hedge—A number of the air carriers mentioned by Babson are credited with having "home landing hedge worth." This is not only doubtful but points to a vulnerable position of the carriers.

The air transport company, in a period of inflation, would be caught with rising costs on one hand and fixed revenues on the other. Passenger, mail and cargo rates are rigid and cannot be raised only with CAB approval. The history of rate adjustments discloses that any correction would require considerable time and may well come at a period to be of little

value to the carrier. Unless, of course, if the CAB decided to order retroactive mail rate increases, a substantial measure of relief would be afforded. But this would return the industry heavily in lock to the government and bring on many other problems.

Realized—Babson regards as favorable the absence of huge outlays of capital by the air carriers for the "warfare" as had to be provided by the railroads and canals. This is correct but it also reveals how valuable the industry is to assuming a greater portion of such expenditures in the future. This condition also permits considerable control of the industry by the government as long as airway aids and similar facilities are provided.

It is unquestionable that the air transport industry will experience an unprecedented growth in the post-war era. It is important, however, to be cognizant of those factors which may serve to depress profits from this growth with gross revenues. It is the former element which interests the discerning investor when it comes to laying down the chips.

Fairchild Process Cuts Engine Weight

Company reports chemical bond of aluminum to steel allows for greater motor cooling efficiency.

A new development which makes possible metal reduction in the structural weight of an aircraft engine and improves the cooling efficiency of its cylinders has been announced by J. Cellian Ward, Jr., president of Fairchild Engine and Airplane Corp., who says it will enable plans to fly faster, faster and higher.

The new alloy, which proved can have use as a combination of several advantages. Ward said, "They can carry greater loads, and, because they are so more accurate and consistent. They can be more gasoline and so increase their range. Their speed and maneuverability can be stepped up."

New Metal Technique—Commenting on a technique impossible technique for obtaining the pure aluminum in steel, perfected by Marshall G. Whitfield and Victor Shestakoff, research engineers associated with Al-Fin Corp., a wholly owned Fairchild subsidiary, Ward said the "invention of the Al-Fin process has been a military



GETS SERVICE PIN:

Capt James Graham, Pennsylvania-Control, who asked in the supply mission to Alaska, receives a ten-year service pin from J. R. Crenshaw, Al-Fin president, and Capt A. E. Wilson, Eastern Finance chief pilot, looks on. Graham has 20,000 hours flying commercial aircraft.

secret for many months, but now it can be told that it has been used in the production of our aircraft engines for more than a year.

Al-Fin and the steel industry's application of Al-Fin has been in connection with construction of 12-cylinder Ranger engines and that Ranger 12's with Al-Fin cylinder barrels now produce more horsepower per pound of weight than any comparable engine.

Process—He explained that the process developed by Whitfield and Shestakoff is a means of permanently bonding pure aluminum and steel into an integral whole. Pure aluminum cooling fins, being light in weight and excellent conductors of heat, can better dissipate engine heat generated in the cylinder than the more common steel or chrome or aluminum alloy fins which do not form a perfect bond with the steel.

Willis Record

A new peak in output of fighters for the Navy's Corsair fighter was set by Willis-Overland Motors in January, after boosted production of assemblies during the last four months of 1943.

The division turned out more of the intricate center wing sections in October than in the preceding month, increased production substantially during November, and added further gains in December when the turnover of the month were carried over into last month.

AAF Contracts

Pass \$2 Billion

1944 output expected to be 60 percent above last year.

The Army Air Force is late have written or initiated contracts totaling \$2 billion dollars and individual companies have as much as two, three or four billion in orders, yet out of 11,000 major contracts to the AAF, nine out of ten had no previous aviation manufacturing experience.

In percentage of planes produced this year, current schedules indicate it will be 60 percent above the weight of aircraft produced in 1943, a gain which will come from both the increase in the number of planes and the increase in the average weight per plane.

Unit Weight Increased—An example is that the Boeing B-27 Flying Fortress used to weigh about 30 tons today it weighs nearly 35 tons. The Superfort's new B-29 Superfort weighs far more than that.

This taught into the production pattern was given recently by Gen. H. H. Arnold, who said that even many previous engineers in war production are not aware of the true range and magnitude of the new effort. Nine out of ten aviation workers had no aircraft employment before war began in Europe, and that they only were women most of whom had to be trained, starting from scratch.

Output Up 60 Percent—Even under these conditions, Gen. Arnold pointed out, the output per aircraft employee earned 60 percent during 1943 due to better distribution of labor, labor utilization cutting down turnover, by improving living conditions, and by housing workers—all of which contributed to worker efficiency which went up and up.

Financial Reports

Bellanca Aircraft Corp. reports decline in 1943 net income to \$348,395 or \$1.95 per common share, from \$800,525 or \$3.01 a common share in 1942. Federal income taxes of \$175,000 and deductions \$79,840 post-war refund credit were said to be largely responsible. In 1942, taxes amounted to \$275,300. Sales last year totaled \$4,222,412 compared with \$5,839,979 in 1941. The 1943 figures are subject to reclassification.

Competition and Service

THE LATEST DECISION of the Civil Aeronautics Board, in which all members concurred, gives additional evidence, borne out by previous action, that CAB is following when possible a consistent policy of service expansion to encourage competition in a better balanced domestic airline system. There have been complaints in the industry that CAB had no plan at all.

The Board's decision to grant National Airlines a new route along the populous East Coast from New York to Miami, through cities not served directly by Eastern should mean healthy competition. It will raise the status of National to one of the country's most important lines.

Other recent acts by CAB are consistent with this latest move. Continental was granted a Denver-Kansas City route and another of several hundred miles in Texas. The Texas "feeder" route was given to a small, new company. Western was allowed Los Angeles-San Francisco.

A better balanced airline system can mean only one thing: more—but not disastrous—competition. In simplest terms it means the public will get better service.

The Burden Nomination

THE NOMINATION of William A. M. Burden, 37, as Assistant Secretary of Commerce, is a fortunate move for aviation.

Since the departure of Assistant Secretary Robert Hinkley, there has been no one in the upper regions of the department who has been able to devote his time consistently to aviation problems. If ever aviation needed understanding men in high government positions, that time is now, when the future of the fastest growing industry in America depends so much on how problems are solved and how plans are made today.

Mr. Burden's interest in aviation dominates all others, as is shown by all of his experience in Scudder, Stevens and Clark, National Aviation Corp., as vice-president of Defense Supplies Corp., in directing the de-Germanization of Latin-American airlines. Since 1942 he has been in charge of CAA,

Weather Bureau and Coast and Geodetic Survey as special aviation assistant to the Secretary of Commerce—the latter a difficult assignment because of its nebulous position in the Commerce Department's organization chart.

His books and other writings on air transportation are well known. He is not a politician. He understands the vital requisite of long-range planning. He is a ready, eager listener with an open mind until he makes his decision. He will work hard for aviation.

Airlines and the Weather

BAD WEATHER has always made railroad men a bit angry. The Pullman advertising just before the war pictured business men looking out from their train windows at snowbound highways and skies filled with snow and sand. The men who had to get somewhere went the dependable way, even though it might take a little longer. At least, the ads said, he was sure of getting there.

As recently as five years ago it was pretty generally felt in non-air transportation circles that the airplane would never beat weather. Some ground transport executives still think so.

If the war were over, these unconverted individuals could be told some things that might surprise them. The public, already aviation-minded, would be astonished.

E. Lee Talman, energetic executive vice-president of TWA, told a New York group enough in one paragraph to give the skeptics new material for thought.

"Radar, and its related science, will permit the safe navigation and landing of aircraft under almost any weather condition. In the past, the airlines have properly sacrificed reliability of service in order to achieve safety, but the day is near at hand when complete reliability of schedules (even surpassing surface transportation) can be maintained consistent with the highest standards of safety."

Of course we won't accomplish such perfection in a few months after the war, but it's still something that long-range planning cannot ignore. Neither can the airlines' competitors.

ROBERT H. WOOD

PRECISION WOODWORKING for AIRCRAFT



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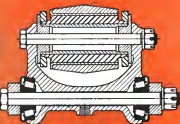
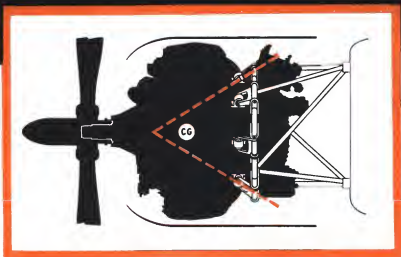
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Facilities and experience of Grand Rapids Industries — research, engineering, production, skilled craftsmen, the output of fast, modern equipment of 15 factories — are available for AIRCRAFT or other war production, in WOOD, solid or laminated. Inquiries will receive immediate executive attention.

ENGINE *VIBRATION* ISOLATED BY LORD DYNAFOCAL ASSEMBLIES, TIMKEN BEARING EQUIPPED

Diagram shows how links are focused to achieve the equivalent of near center of gravity support. Diagram courtesy Wright Aeronautical Corp.



Timken Bearings shown pressed into link forging.



TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS

THROUGH controlled directional spring restraint, Timken Bearing Equipped, Lord Dynafocal Suspension Assemblies provide the equivalent of a support near the center of gravity of the engine and, at the same time, isolate engine vibration which occurs at critical speeds. The net result is a marked reduction in structural fatigue of wing, fuselage and tail parts.

Links spaced symmetrically around the engine mounting ring have two pivot points - - one a bonded rubber bushing, the other is formed by two Timken Bearings pressed into the link forging. (See line drawing.)

Timken Bearings permit the links to float freely. They carry radial loads generated by the propeller plus the engine weight and also thrust loads resulting from propeller torque. Hundreds of thousands of Timken Bearings have been used in this application manufactured by Lord - - and they have given highly successful performance.

THE TIMKEN ROLLER BEARING COMPANY, CANTON 6, OHIO